DRAFT – FOR DISCUSSION ONLY
(11/03/04)

SOUTH-DELTA FISH FACILITIES CO-CHAIR'S REPORT: SOME PRELIMINARY POLICY CONCLUSIONS

Preamble

The South Delta Fish Facilities Forum (Forum) was created in 2002 by CALFED to address questions regarding investments in fish screens in the South Delta as part of the CALFED Bay-Delta Program. The CALFED Record of Decision (ROD) directs the design and construction of new fish screens at the Clifton Court Forebay (CCF) and Tracy pumping plant to allow export facilities to pump at full capacity more often. A subsequent agreement between the state Department of Water Resources, Department of Fish and Game, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, NOAA Fisheries, and CALFED Bay-Delta Program[1] recommends a "modular" approach to South Delta fish screens intended to afford maximum protection to fisheries in the Delta. However, the costs of this approach could be as high as $1.7 billion – an amount equal to the entire Environmental Restoration Program budget proposed for the next 10 years. Because of concerns about the costs and effectiveness of such a strategy, the Forum has engaged in a participative process with stakeholders and outside experts to explore the ROD strategy as well as alternatives. The charge of the Forum is to make recommendations to the California Bay-Delta Authority and the state and federal agencies regarding the best direction in the future for pursuing investments in fish screens in the South Delta. The Forum Co-Chairs agree that this charge must be fulfilled in a manner consistent with ensuring maximum benefits for fish populations and habitat given available resources and, accordingly, that cost-effectiveness should be a central consideration in guiding future investment decisions. This white paper summarizes the conclusions of the Co-Chairs based on nearly two years of public meetings.

Overview of Conclusions

The Co-Chairs believe that investment decisions to protect and restore fish populations, including fish screens in the south Delta, should be guided by the overall goal of achieving existing federal and state population targets by using available financial resources in the most cost effective manner possible. Based on considerable dialogue and public input through the Forum process, we do not believe that pursuing the modular screening strategy is consistent with this goal. Instead, we recommend that immediate actions outlined below be taken to improve fish protection in the south delta, but these actions are expected to cost far less than the modular screen approach. Rather than spending additional large sums on South Delta screen solutions, we recommend that CALFED develop assurances through the 10-year finance plan to implement alternative important strategies that are almost certainly far more productive in accomplishing fish population targets. This strategy is also to be included in the program plans of the Conveyance, Ecosystem Restoration, and Science programs and the Environmental Water Account.

Conclusions

1) **Phased Decision-Making:** Decisions about South Delta fish screens should be phased with earlier investments. Phased decision-making will provide incremental gains at modest cost.

2) **Science:** Additional science is necessary to support investment decisions in fish facilities, particularly regarding some significant issues related to long-term decisions. However, waiting for answers to these larger questions should not delay near-term actions to improve protections for fisheries in the South Delta. The Co-Chairs recognize that some long-term decisions may be based on the best available science at the time a decision is needed.

3) **Assurances:** Any portfolio of investments to protect and restore fisheries should be subject to binding commitments among the resource agencies, project operators, and interested parties to assure financing and effective implementation. The Co-Chairs recognize that operational strategies or alternative habitat investments may be more cost-effective in increasing fish populations than the South Delta modular screening alternatives. However, absent firm commitments to actually implement alternative strategies to protect and restore fish populations of concern and quantifiable improvements, the regulatory agencies must retain their commitment to the actions identified in the ROD and the state and federal endangered species acts and act in accordance to their public trust responsibilities.

4) **Adequate Funding:** Reliance on alternatives identified in the Forum process should be contingent on availability of adequate funding to implement the alternative. The Co-Chairs recommend that such funding with firm commitments from public, water user, and other sources consistent with the beneficiaries-pay principle be included in the 10 year finance plan now under development by the CBDA. The 10-Year Finance Plan should also protect funds in Propositions 13 and 50 intended to improve fish screens in the South Delta for that purpose.

5) **Immediate Actions:** The Co-Chairs have concluded that immediate action is required to improve the function of the existing SWP and CVP fish facilities in the South Delta to assure effective fish protection despite changing Delta conditions. The fish facilities should be modified and/or operated to achieve the original performance objectives required for louver facilities. These immediate actions also include initiating feasibility studies and continuing facility research activities that will assist in determining the feasibility and cost effectiveness of future actions and modifications. These immediate actions should include:

    - Conducting a feasibility study to develop an approach to reduce predation losses in CCF. This study will examine the hydraulic and facility impacts of alternatives that reconfigure flows to the Skinner Fish Facility with the intent to reduce CCF predation losses. A predator study plan will be

developed around technically feasible alternatives to investigate potential improvements in fish survival. The Co-Chairs agree that proposals to "bypass" CCF and screen water at the existing screening facilities at the Banks pumping plant **before** the water enters the CCF, essentially converting the forebay into an afterbay, have considerable merit.

- Improving debris-handling operations at the existing facilities to improve both fish protection and operational efficiency. Specific actions include providing automated cleaning systems for the SWP and CVP trash racks, cleaning systems for the CVP's primary and secondary louver cleaning systems, and substantially reducing the debris that enters the fish trucks. New systems should minimize or eliminate salvage operation disruptions, including constructing redundant channels or holding systems if necessary. A phased improvement to the CVP's bypass and holding system, described below, is another immediate action that will reduce debris impacts.
- Completing the CHTR studies to identify facility or operational actions that will increase survival of delta smelt during collection, handling, transportation, and release. Recommendations on implementing these actions will be considered when more information is available or upon study completion (2006).
- Completing the proposed South Delta hydrodynamics, water quality, and fish movement studies to identify better operational strategies that minimize fish entrainment at the export facilities. These studies will also be used to investigate future operations and facilities related to possible CCF reconfigurations.
- Phasing-in replacement of the CVP secondary louvers and fish holding facility to improve fish collection efficiency and protection by increasing bypass flows, improving debris management, and improving operational efficiency. This new system would connect the existing bypass pipes to "fish friendly" pumps (to provide higher bypass flows) and connect them to above-ground holding tanks. Lower bypass flows and low water levels have been identified as major hydraulic deficiencies that impact fish collection efficiency. In addition, the above-ground holding tanks can reduce the debris impacts that cause fish injury and mortality in the CHTR process. Implementing these facility changes at the SWP facility may be considered after experience with this system.
- Improving water weed control measures for CCF.
- Reviewing and implementing, as appropriate, operations at the state and federal fish facilities to improve, as necessary, staffing, equipment and standard operating procedures.

6) **Long-Term Investments:** Long-term investment decisions should be guided by adaptive decision making strategies and the best available science. Based on available scientific information, the Co-Chairs believe that the following considerations should guide long-term investment strategies in the South Delta:

- The modular screening strategy should not be pursued so long as a cost-effective alternative that provides greater productivity in fish populations and habitat is adequately financed and its implementation is assured.
- Screening criteria in the South Delta should not be driven by delta smelt considerations. Similarly, screening criteria for salmon should be adjusted to reflect cost effectiveness considerations, thereby reducing the cost of South Delta screens and releasing funds for habitat investments elsewhere.
- Operational strategies to protect and restore delta smelt are likely to be far more productive and cost effective than large expenditures on South Delta screens. The Co-Chairs recommend that the CALFED Agencies develop specific operational strategies and cost estimates and assure that adequate financing remains in the 10-Year Finance Plan to protect delta smelt.

- The Co-Chairs recommend that alternative actions be considered which may be more cost effective in increasing fish populations and improving habitat. These alternative actions may include installation of operable barriers (e.g., head of Old River Barrier) and removal or modification of obstacles to improve fish passage, as well as habitat enhancements above and below dams. The CALFED 10-Year Finance Plan should specifically identify such alternative actions and include assured funding for them. This strategy will be incorporated into the program plans of the Conveyance, Ecosystem Restoration, and Science programs and the Environmental Water Account.